

Appln. No.: 10/533,765
Amendment Dated: July 11, 2008
Reply to Office Action of: January 11, 2008

MTS-3555US

Remarks/Arguments:

Claims 29-31 have been amended and are fully compliant with 35 U.S.C. § 101. Claim 32 has been cancelled. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 101 rejection of claims 29-31.

Applicant's disclosure is directed to a slave apparatus (e.g., digital camera 110) which is capable of automatically setting a communication mode corresponding to the type of external device to be connected with the slave apparatus (e.g., a mass storage class device such as printer B730, an imaging class device such as printer B740, or a device operable in both classes such as PC 720) without need for a user to carry out complicated operations. See, e.g., Applicant's specification at page 4, lines 4-10.

Claims 1 and 15-33 stand rejected under 35 U.S.C. § 103(a) as obvious over the combination of Yamaya (U.S. Pub. No. 2004/0109062) and Morita et al. (U.S. Patent No. 6,985,178). Applicant respectfully submits, however, that claims 1 and 15-33 are patentable over the art of record for the reasons set forth below.

Applicant's invention, as recited by claim 1, includes a feature which is neither disclosed nor suggested by the art of record, namely:

...judging means of transmitting to said master device a notification code of notifying a presently set-up communication mode, and then judging whether a command in response to said notification code is received from said master device within a predetermined time or not...

...communication controlling means of performing control on the basis of a judgment result of said judging means in such a manner...that when said command is not received within said predetermined time, connection to said master device is electrically released temporarily and then said connection is restored...

...by the time when said slave apparatus and said master device resume communication as a result of said restoration of connection, said communication controlling means selects one from a plurality of said communication modes so that its own communication mode is changed into one different from that used immediately before said release.

Yamaya discloses a method of transferring data between a digital camera 102 and a personal computer 100 over a USB cable 101. See FIG. 1. As shown in FIGs. 3A, 3B and 3C, **a user may select** a USB interface for the digital camera 102 from a list of USB interfaces (e.g., PTP and mass storage). In another embodiment, a default USB interface may be pre-set for the digital camera 102 (e.g., mass storage may be the default). See Yamaya at paragraphs 0055-0057.

Morita discloses a camera control system that includes a camera server 1-1 and a plurality of clients 1-2. See FIG. 10. In the system, one client 1-2 at a time may remotely operate a camera 1-11 of server 1-1 and remotely distribute an image taken by the camera 1-11 to other clients 1-2. If the camera server 1-1 activates and a client 1-2 establishes a connection with the server 1-1, the server 1-1 must wait for the client's request to establish communication. The server 1-1 also sets a timer. When the client 1-2 sends a request to communicate, the server 1-1 receives it. If the server does not receive a request within the set time period, the connection between the server 1-1 and the client 1-2 is turned off. See Morita at col. 12, lines 8-12 and col. 13, line 65 through col. 14, line 5.

As described above, Yamaya discloses that a user may select a USB interface for a digital camera. Because the user must select the interface, Yamaya does not disclose that the digital camera (slave apparatus) automatically selects a USB interface for itself. In other words, Yamaya does not disclose the feature of "by the time when said slave apparatus and said master device resume communication as a result of said restoration of connection, said communication controlling means selects one from a plurality of said communication modes so that its own communication mode is changed into one different from that used immediately before said release," as required by Applicant's claim 1. Morita fails to make up for this deficiency of Yamaya.

Nevertheless, the Examiner argues as follows:

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Yamaya to realize the non affirmative scenario when the PC does not receive the camera's input within a certain amount of time then a connection will not be made. This is a common scenario in connection between master and slave to

account for various errors such as faulty connectivity with the USB wire for example and will produce predictable results. It would be obvious that a connection would be attempted continually afterward therefore the disconnect being only temporary. Yamaya teaches the default state can be the mass storage class "normal" mode (paragraph 57) therefore the communication mode is changed after an error in connection.

See the Office Action at page 4, lines 5-14.

In response to the above argument, it should be noted that Morita teaches that the server, and not the client, turns off the connection between the server and the client if the server does not receive a request for communication within the set time period. This is distinguishable because Applicant's claim 1 requires that the slave device (e.g., a camera) temporarily and automatically turn off the connection when the slave device does not receive a response from the master device (e.g., a printer). That Applicant's slave device, and not the master device, automatically turns off the connection may be advantageous for the following reasons. Namely, it enables the slave device to automatically select a different communication mode if a response is not received. Yamaya does not disclose such capability.

Further, the Examiner's argument that Yamaya teaches that "the communication mode is changed after an error in connection" is incorrect. While Yamaya does teach that a default state (e.g., normal mode) may be set for the camera, this is an alternative embodiment of Yamaya wherein the communication mode is pre-set for the device (and presumably the user may not change it). Yamaya does not disclose that a user may select a communication mode for a slave device and the slave device automatically changes to the default mode if an error is encountered. To even infer from Yamaya that the camera changes to the default mode if an error is encountered is an extreme departure from what Yamaya actually teaches.

Accordingly, neither Yamaya, nor Morita, nor their combination disclose or suggest the features of claim 1 recited above. Therefore, claim 1 is patentable over Yamaya, Morita, and any combination thereof.

Independent claims 15, 16 and 26-28, while not identical to claim 1, include features similar to claim 1. Accordingly, claims 15, 16 and 26-28 are also patentable

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over Yamaya, Morita, and any combination thereof, for at least the reasons set forth above with respect to claim 1.

Claims 17-25 and 33 includes all features of claims 1, 15 and 16, from which they depend. Claims 29 and 32 include all features of claim 26, from which they depend. Claims 30 and 32 include all features of claim 27, from which they depend. Claims 31 and 32 include all features of claim 28, from which they depend. Thus, claims 17-25 and 29-33 are also patentable over Yamaya, Morita, and any combination thereof, for at least the reasons set forth above with respect to claim 1.

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,



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